Active Living: Promoting Physical Activity through Healthy Environments

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Active Living, Belfast: Promoting Physical Activity through Healthy Environments

Rapid urbanization poses significant public health challenges. By designing activity-friendly environments, designers and planners can enable people to be physically active in their daily routines and shape fundamental aspects of health and wellbeing.

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Our world is undergoing the largest wave of urban growth in history. For the first time in human history, more than half of the world's population (54%) now lives in towns and cities. By 2030, it is estimated that 60% of the world's population will be urban dwellers, projected to rise to about 70% by 2050. A vast majority of this growth is occurring in developing countries, particularly in Asia and Africa. Urbanization is one of the leading global trends of the 21st century which has major impacts on public health and well-being.

Multi-use urban street in India

Rapid urban development across the world is creating continuous shifts and transformations in the environments in which we live, work, and play. Alongside these shifts in our environment, several lifestyle modifications are being observed. Over the last century technological advances and the availability of electronic devices have enabled people to reduce the amount of physical labour needed to accomplish many tasks in their daily lives, resulting in a surge of sedentary desk jobs and long hours spent sitting. Ordinary and everyday tasks such as a trip to the grocery store or getting to school or work that used to be completed on foot are now accomplished by driving to those destinations in privately owned automobiles. In the UK for example, over 50% of car journeys are under 5 kilometres. This overemphasis on motorized transport brings other issues like pollution and its resulting effects on the population's health.

These urban changes — in transportation, communications, workplaces and homes — have several public health implications. Cities are becoming focal points for many emerging environment and health hazards with urban dwellers experiencing poor chronic health conditions such as obesity, diabetes, heart disease and cancers. Regular physical activity can prevent these chronic conditions and diseases. It can also contribute to mental wellbeing and the maintenance of mobility and independence in older adults. The World Health Organization recommends at least 150 minutes of moderate physical activity (e.g. cycling, fast walking) every week. However, over two-thirds of adults and children in the UK are undertaking less than the minimum recommended levels of activity, highlighting an urgent need to increase physical activity levels in the UK.

What is active living and why is it important?

Active living is way of life that integrates physical activity into daily routines. Physical activity may be done on purpose, such as a jog in a park or riding a bicycle, or it may be incidental, such as a ten minute walk to a public transit stop. In both these cases, the design and quality of the neighbourhood environments may influence the decisions and experience of its residents. A key component of active living is active transportation: an approach to traveling that focuses on physical activity (e.g., walking, cycling to work) as opposed to motorised and carbon-dependent means. Active living is about optimising opportunities for good health, so that the default option is the healthy option, enabling people to stay active in everyday life.

Cyclists in Copenhagen, Denmark: A city built for cyclists

How can design promote active living and active transportation?

Being physically active as a part of the daily routine depends on policies followed by governments, particularly in urban design and planning. Connected and walkable neighbourhoods that are designed to be activity-friendly can influence physical activity and promote active lifestyles by default. Research has highlighted that the design of environments that promote physical activity and active living can play a key role in chronic disease prevention

Pedestrians, cyclists, and users of other modes of active transportation need to be given the highest priority when re-configuring existing streets or planning new road networks. This includes provision of supportive street infrastructure such as footpaths, bicycle lanes and strong public transport networks which significantly influence choices that people make in getting to and from places. In policy and practice, this may translate to introducing car-free zones, re-allocating road space to prioritise walking, cycling and public transit (e.g. dedicated cycle and bus lanes), restricting motor vehicle access by road rationing (e.g. controlling private vehicles by odd-even license plates), introducing road pricing measures such as traffic congestion charging, traffic-calming (e.g. speed bumps, narrowing traffic lanes), creating safe routes to schools, and promoting programmes such as public cycle rental schemes and walk/cycle to work schemes. Small-scale improvements such as good street lighting, landscaping, improved signage and improved road crossings may also encourage movement. Such infrastructure and policy changes have the potential to yield substantial shifts in travel patterns from private automobile use to walking and cycling.

With individual buildings, design elements such as the location of stairs, types of desks and centrally located printers can promote more physical activity and less sedentary behaviour among employees. Abundant natural light, indoor plantings and walking paths, collaboration spaces at workplaces can improve well-being of inhabitants, simultaneously improving environmental outcomes and reducing waste.

Supportive and inclusive design is an important aspect for health regardless of age, gender, or socioeconomic status, but especially for children, elderly and the differently-abled. Appropriate safety features to provide predictability and distinguish areas for cyclists and pedestrians, including those who have mobility, sensory, or cognitive disabilities, can ensure all-inclusive designs where all users can co-exist. Such safety features include step-free building access, dropped kerb or raised road crossings, tactile paving surfaces, hazard warning surfaces, accessible pedestrian signals and traffic islands or refuges.

Active-friendly environments offer unique opportunities to positively influence public health. For example in Copenhagen, one of the world's most activity-friendly cities, 50 % of its residents commute to work or study by bicycle. Twenty five percent of all families with children in Copenhagen have a cargo bike which they use to transport their children to school, for grocery shopping, etc. This was accomplished by the city administration's vision to build infrastructure on the fact that a bicycle is the cheapest, healthiest and fastest way to get around the city, as well as a very important factor in reducing carbon emissions.

Shared bus and bicycle lane in Belfast

It is important to note that traffic behaviour and urban characteristics in developing countries are fundamentally different from those in developed economies, especially in terms of heterogeneity, non-lane based traffic, little or no segregation, driver behaviour etc. This requires fundamentally different approaches to tackle urban design, traffic control and management, parking policy and management, road geometry and traffic flow, non-motorized transport and public transport infrastructure and management.

By considering everyday opportunities for being physically active in buildings and urban public spaces, and providing access to environmentally sustainable and safe modes of transportation, design can play a critical role in shaping the long term health of residents. Architects and planners need to be aware that their decisions about appropriate mixes of land use, strategic density, various policies, design and review processes on these aspects play an important role in the long term with significant public health implications.

Effective solutions can come about by an interdisciplinary exchange of knowledge and skills. Urban planners and architects will need to work closely with public health professionals at a strategic level. Design professionals should be encouraged to engage with strategic health authorities, primary care trusts, health practitioners and policy makers. This will stimulate dialogue, exchange of ideas, and stimulate greater action for designing healthy neighbourhoods and communities worldwide.

Cities are home to both opportunities and obstacles; with better design decisions and planning we can create safer and healthier cities to prevent injuries, reduce diseases, and save lives. Urbanization represents a great opportunity to improve people's health, but also a complex challenge, especially in places where urbanization is outpacing the development of infrastructure, services, and other resources required to sufficiently meet the needs of populations.

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